ABSTRACT

The lack of core level trusted third party in multi-agent communication strategy of distributed eCommerce communities several issues pertaining to reputation management have been identified. These issues feature agent recognition strategy, dependable reputation maintenance. The disadvantage of the existing system is the reputation of the agent that responds to a request is considered but the credibility of the agent that attempts to update the reputation of the other agent is ignored. This necessitates the addressing of this problem which is a very important feature in ecommerce communities and hence the present work is proposed.

In order to expedite this detection of unfaithful and malicious agents, an agent recognition a mechanism is proposed for distributed communication communities such as Business-to-Business, Business-to-Consumer, Consumer-to-Consumer and Consumer-to-Business eCommerce communities. A laurel system for multi agent communication can be let down by a set of malicious agents in eCommerce communities. Such a group can maliciously raise the laurel of one or more agents of the group. There is no known method to protect a laurel system against swindler agent groups. Therefore, there is a need for false-proof laurel management mechanism to avoid malicious agents providing false state of laurel. This proposal aims to devise a model to encapsulate the reputation of both the agent that respond and the agent that request. The proposed protocol reduces the number of malicious transactions based on reputation-aware agent selection strategy. This model includes Service request from Nth Supplicant, sees that request goes to all possible respondents and collects the respondent certificate where nth supplicant will create digital signature from it and verifies signature including validity of agent reputation.

It also manages the issue of highly inconsistent accessibility pattern of the agents in multi agent communication based systems. The developed Protocol is thoroughly tested and snapshots to that extent are presented in the thesis.